

V. Claims

I claim:

1. An interruptor assembly comprising a contact having a center and an outer edge, the contact comprising a combination of electrically conductive material and magnetic materials, the magnetic materials arranged within the contact so that an axial magnetic field produced in the contact under relatively low current conditions has a substantially constant strength from the contact center to the contact outer edge.
2. The interruptor assembly of claim 1 wherein the magnetic materials are further arranged so that the axial magnetic field strength under relatively high current conditions is substantially constant from the center to the outer edge.
3. The interruptor assembly of claim 1 wherein the magnetic materials are further arranged so that the axial magnetic field strength under relatively high current conditions gradually increases from the center to a point near the outer edge, thereafter ceasing to increase in value and dropping off towards a zero value at the outer edge.
4. The interruptor assembly of claim 1 wherein the magnetic materials comprise at least one magnetic material having a high magnetic saturation point and a high magnetic permeability.
5. The interruptor assembly of claim 4 wherein the at least one magnetic material is located near the contact outer edge.
6. The interruptor assembly of claim 1 wherein the magnetic materials comprise at least one magnetic material having a low magnetic saturation point and low magnetic permeability.
7. The interruptor assembly of claim 6 wherein the at least one magnetic material is located near the contact center.

8. The interruptor assembly of claim 1 wherein the magnetic materials comprise at least one magnetic material having a high magnetic saturation point and a low magnetic permeability.
9. The interruptor assembly of claim 8 wherein the at least one magnetic material is located near the contact outer edge.
10. The interruptor assembly of claim 1 wherein the magnetic materials comprise at least one magnetic material having a low magnetic saturation point and a high magnetic permeability.
11. The interruptor assembly of claim 10 wherein the at least one magnetic material is located near the contact center.
12. The interruptor assembly of claim 1 wherein the contact comprises a contact stem integrally attached to a contact body.
13. The interruptor assembly of claim 1 wherein the contact is generally round in shape.
14. An interruptor assembly comprising a contact having a center and an outer edge, the contact comprising a combination of electrically conductive material, a first magnetic material, and a second magnetic material, the first magnetic material located near the contact outer edge and having a high magnetic saturation point and a high magnetic permeability, the second magnetic material located near the contact center and having a low magnetic saturation point and a low magnetic permeability.
15. The interruptor assembly of claim 14 wherein the contact comprises a contact stem integrally attached to a contact body.
16. The interruptor assembly of claim 14 wherein the contact is substantially round in shape.

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17. The interruptor assembly of claim 16 wherein the first magnetic material is substantially annular in shape.
18. The interruptor assembly of claim 16 wherein the second magnetic material is substantially disc shaped.
19. An interruptor assembly comprising a contact having a center and an outer edge, the contact comprising a combination of electrically conductive material, a first magnetic material, and a second magnetic material, the first magnetic material located near the contact outer edge and having a high magnetic saturation point and a low magnetic permeability, the second magnetic material located near the contact center and having a low magnetic saturation point and a high magnetic permeability.
20. The interruptor assembly of claim 19 wherein the contact comprises a contact stem integrally attached to a contact body.
21. The interruptor assembly of claim 19 wherein the contact is substantially round in shape.
22. The interruptor assembly of claim 19 wherein the first magnetic material is substantially annular in shape.
23. The interruptor assembly of claim 19 wherein the second magnetic material is substantially disc shaped.